

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant(s): Teruhiko Fujisawa, et al. Group Art Unit: 2681
Serial No.: 10/026,172 Examiner: Pierre Louis Desir
Filed: December 21, 2001 Confirmation No.: 9434
Title: Wrist-Watch Device Having Communication Function, Information
Display Method, Control Program, and Recording Medium

Brief on Appeal Under 37 C.F.R. § 41.31

Sir:

INTRODUCTION

Pursuant to the provisions of 37 C.F.R. § 41.31 *et seq.*, Appellants hereby appeal to the Board of Patent Appeals and Interferences (the "Board") from the Examiner's Final Rejection dated March 10, 2006. A Notice of Appeal was timely filed with the requisite fee on June 7, 2006 in accordance with 37 C.F.R. § 1.8. This Brief on Appeal is being filed in accordance with 37 C.F.R. § 41.37 and the Commissioner is authorized to charge the requisite fees (37 C.F.R. § 41.37 and 41.20(b)(2)) to the undersigned's Deposit Account No.: 19-2746.

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ATD Corp. v. Lydall, Inc., 48 USPQ2d 1321, 1329 (Fed. Cir. 1998).

REAL PARTY IN INTEREST

The parties listed in the caption of the brief have assigned all interest in the application from which the instant appeal is taken to:

Seiko Epson Corporation
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Shinjuku-ku, Tokyo
Japan

Thus, Seiko Epson Corporation is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Appellants, Appellants' legal representative, or assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in the instant appeal.

STATUS OF CLAIMS

Claims 1, 3 through 15, 17, and 19 through 26 are under final rejection and are the subject of this appeal.

Claims 2, 16, and 18 are cancelled.

STATUS OF AMENDMENTS

No amendment has been filed subsequent to the final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

In the following discussion, the format of the claims will be maintained to allow easy reference to the actual claim language. References to "Fig." numbers and reference characters are references to drawings of the subject application and references to page numbers and lines are references to the specification of the subject application.

Independent Claim 1

The present invention as recited in independent Claim 1, is directed to a wrist-watch (2, Fig. 1) device having a wireless communication function, comprising:

a timepiece module (10, Fig. 4) including a mechanically driven time display member that displays the time (hour/minute-hand and second-hand moving mechanisms 30MH and 30S, Fig. 4);

a wireless communication circuit (60, Fig. 5) that transmits and receives data to and from an external wireless device (100, Fig. 1) 1 by wireless communication, said wireless communication circuit including memory (69, Fig. 5) that stores non-display data;

[Fig. 5 and Page 13, lines 12-23: The non-volatile memory 69 is formed of, for example, an EEPROM. The encrypted data supplied from the encryption processor 68 is written into the non-volatile memory 69. Upon receiving an instruction from the IC controller 67, the stored data is read out of the non-volatile memory 69. *For example, in the non-volatile memory 69, data corresponding to the payment information for the services, ICCID (IC Card Identification) with which each IC card must be provided, a service provider ID for identifying the corresponding service provider, and so on, are stored.*]

When this contactless IC module 60 is used as a prepaid train ticket, the data format of the data stored in the non-volatile memory 69 is, for example, such as that shown in Fig. 6. *That is, the personal ID of the user, the balance data Da, the service provider ID, etc., are stored in the non-volatile memory 69.]*

a timepiece control unit (14, Fig. 4) that controls said time display member to display non-time information in accordance with said stored data;

[Page 10, lines 1-12: *As the insufficient-balance reporting processing, power-voltage supply processing, irregular movement processing, etc. may be employed. According to the power-voltage supply processing, the power supply voltage Va from the battery 22 is transformed to power a supply voltage Vb, and is supplied to the contactless IC module 60, thereby driving the contactless IC module 60. The irregular movement processing is as follows. The value of balance data Da read from the contactless IC module 60 is compared with the value of the predetermined data D0, and upon receiving the comparison result, the second-hand moving mechanism 30S changes the duty of the pulse signal, resulting in a three-second movement. The timepiece control unit 14 includes a comparator unit that may comprise the CPU 14B that is programmed to compare the two values and provide a comparison result as described.]*

a timer that counts a predetermined time period and wherein said timepiece control unit is responsive to said timer counting to an end of said predetermined time period for controlling said time display member to display non-time information in accordance with said stored data;

[Page 15, lines 23-29: The insufficient-balance reporting processing performed by the timepiece module 10 is described below with reference to the flow chart of Fig. 8.

This insufficient-balance reporting processing is performed at regular intervals of predetermined determination cycle periods TSP. Accordingly, *the timepiece control unit 14 counts a predetermined time with an internal timer 14E* (step Sa1), and waits until the counted time reaches the end of determination cycle period TSP (step Sa2).]

a comparator unit (CPU 14B, Fig. 4) that compares a value of said stored data with a value of predetermined data, and that generates comparison result data; and

wherein said timepiece control unit controls said time display member to display non-time information in accordance with said comparison result data.

[Page 10, lines 6-12: The value of balance data Da read from the contactless IC module 60 is compared with the value of the predetermined data D0, and upon receiving the comparison result, the second-hand moving mechanism 30S changes the duty of the pulse signal, resulting in a three-second movement. *The timepiece control unit 14 includes a comparator unit that may comprise the CPU 14B that is programmed to compare the two values and provide a comparison result as described.*]

Dependent Claim 3

Dependent Claim 3 recites:

wherein said time display member comprises a second hand (40, Fig. 4) and said timepiece control unit controls said second hand to perform an irregular movement in accordance with said comparison result data.

[Page 10, lines 6-9: The value of balance data Da read from the contactless IC module 60 is compared with the value of the predetermined data D0, and upon receiving the comparison result, *the second-hand moving mechanism 30S changes the duty of the pulse signal, resulting in a three-second movement.*]

Dependent Claim 4

Dependent Claim 4 recites:

wherein said timepiece control unit controls said second hand to move a predetermined distance in accordance with said stored data. (Claim 4)

[Page 21, lines 17-23: It is now assumed that the user has operated the balance display switch 21 when the second hand 40 was positioned at the fifth second by the regular movement operation.

When the contactless IC module 60 is unused, the second hand 40 moves from the position at the fifth second to the 35th second, which obtained by adding 30 seconds to the fifth

second. When the balance is 2/3, the second hand 40 moves from the position at the fifth second to the 25th second, which is obtained by adding 20 seconds to the fifth second.

As discussed above, in the first display example, *the balance is displayed by the distance traveled by the second hand 40.*]

Dependent Claim 5

Dependent Claim 5 recites:

wherein said timepiece control unit controls said second hand to restart displaying time after a predetermined period following movement of said second hand said predetermined distance.

[Page 20, line 27 to page 21, line 5: The timepiece control unit 14 sets in a time counter 14A the amount by which the second hand is to be moved according to the balance data Da, and fast-forwards the second hand 40 (or another indicator hand) by the amount of movement. Accordingly, the balance according to the balance data Da is displayed by using the second hand 40 (step Sc5).

Then, the timepiece control unit 14 stops the supply of the power supply voltage Vb and the second reference clock CLK2 to the contactless IC module 60 (step Sc6).

Thereafter, the timepiece control unit 14 restarts the display of the current time (step Sc7).

In this case, *the time counter 14A counts down the second hand 40 every second, and when the count value becomes zero, the regular one-second movement is restarted.*]

Dependent Claim 6

Dependent Claim 6 recites:

wherein said timepiece control unit controls said second hand to move to a predetermined position in accordance with said stored data.

[Page 21, lines 28-32, When the contactless IC module 60 is unused, the second hand 40 is moved to the position at the 30th second. When the balance becomes 2/3, the second hand is moved to the position at the 20th second.

As discussed above, *in the second display example, the balance is displayed by the position of the second hand 40.*]

Dependent Claim 7

Dependent Claim 7 recites:

wherein said timepiece control unit controls said time display member to display information in accordance with said comparison result data when the value of said stored data is less than the value of said predetermined data,

[Page 10, lines 6-9: The value of balance data Da read from the contactless IC module 60 is compared with the value of the predetermined data D0, and upon receiving the comparison result, *the second-hand moving mechanism 30S changes the duty of the pulse signal, resulting in a three-second movement.*]

and said timepiece control unit is responsive to an updating signal transmitted from said external wireless device for updating the value of said predetermined data.

[Page 17, lines 26-33: The timepiece control unit 14 of the timepiece module 10 determines whether the minimum-fare data stored in the RAM coincides with the minimum-fare data D0 sent to the timepiece control unit 14 (step Sb9). Upon this determination, if the minimum-fare data stored in the RAM coincides with the minimum-fare data D0 (step Sb9; YES), this processing is completed.

In contrast, if the two minimum-fare data are different (step Sb9; NO), the timepiece control unit 14 *stores the received minimum-fare data D0 in the RAM so as to update the minimum-fare data D0* (step Sb10).]

Dependent Claim 8

Dependent Claim 8 recites:

wherein said wireless communication circuit is responsive to a polling signal from the external wireless device for transmitting a communication enable signal indicating that wireless communication is to be performed with the external wireless device.

[Page 14, lines 27-34, When the user R approaches the ticket gate of the contactless ticket machine 300, an induction magnetic field (*polling signal transmitted from the antenna 104 of the automatic ticket machine 300*) is received by the loop antenna 5 of the wrist-watch device 1. Accordingly, the signal corresponding to the induction magnetic field is rectified in the rectifying circuit 62 so as to generate the supply voltage Vb, thereby driving the drive unit A. The IC controller 67 then stores the data corresponding to the signal according to the control program, and also *transmits the data stored in the non-volatile memory 69* from the loop antenna 5.]

Dependent Claim 9

Dependent Claim 9 recites:

a housing and a switch positioned on said housing and wherein said timepiece control unit is responsive to actuation of said switch for controlling

said time display member to display information in accordance with said stored data.

[Fig. 14 and Page 14, lines 27-34, The balance display processing is described below based on Fig. 14.

This processing is started when the user operates *the balance display switch 21* (step Sc1).]

Dependent Claims 10 and 11

Dependent Claim 10 recites:

wherein said time display member comprises a first dial that displays at least one of the day of the week and the day of the month and said timepiece control unit controls said first dial to display information in accordance with said stored data.

Dependent Claim 11 recites:

wherein said time display member comprises a first dial that displays time, and a separate second dial that displays at least one of the day of the week and the day of the month and said timepiece control unit controls said second dial to display information in accordance with said stored data.

[Figs. 10-13 and Page 18, line 10 to page 19, line 15, Alternatively, a character "E" (Empty) indicating the insufficient balance may be provided other than the day of the week or the day of the month on a fixed character plate for displaying the time. During the calendar display mode, *the day of the week or the day of the month may be designated by an indicator hand, and in the case of the insufficient balance, the character "E" may be designated by an indicator hand.*]

Dependent Claim 12

Dependent Claim 12 recites:

wherein said time display member comprises a stop-watch indicator hand and a stop-watch dial that displays measured time, and said timepiece control unit controls said stop-watch indicator hand to display information in accordance with said stored data.

[Fig. 26 and Page 22, lines 15-35, The wrist-watch device 1 shown in Fig. 20 is a so-called chronograph (having a stop-watch function). That is, as shown in Fig. 20, dials 74, 75, and 76 for counting 30 minutes, 60 seconds, 12 hours by indicator hands 71, 72, and 73, respectively, are separately provided on the dial 52 that also displays the time by the hour hand 51, the minute hand 50, and the second hand 40. ...

In this case, it is assumed that the indicator hand 71 of the dial 74 indicates the tens of dollars unit place, the indicator hand 72 of the dial 75 indicates the ones of dollars unit place, and the indicator hand 73 of the dial 76 indicates the tens of cents unit place. ...

With this arrangement, as in the example of Fig. 19, the balance is \$36.90, with “3”, “6”, and “9” indicated by hands 71, 72, and 73, respectively.]

Dependent Claim 13

Dependent Claim 13 recites:

wherein said wireless communication circuit comprises an IC chip including a communicator that modulates and demodulates data, and a controller that controls individual elements.

[Page 12, lines 8-10, The *IC chip* 61 includes a rectifying circuit 62, a third-reference signal generator 63, a *demodulator* 64, a *modulator* 65 (*RF portion*), an SP/PS converter 66, an *IC controller* 67, an encryption processor 68, and a non-volatile memory 69.]

Dependent Claim 14

Dependent Claim 14 recites:

wherein said wireless communication circuit comprises a power supply voltage generator that receives a signal from said external wireless device and that generates a power supply voltage from said received signal, and said timepiece control unit reads data from said wireless communication circuit by using said generated power,

[Page 14, lines 27-32, When the user R approaches the ticket gate of the contactless ticket machine 300, an induction magnetic field (polling signal) transmitted from the antenna 104 of the automatic ticket machine 300 is received by the loop antenna 5 of the wrist-watch device 1. Accordingly, the signal corresponding to the induction magnetic field is rectified in the rectifying circuit 62 so as to generate the supply voltage V_b , thereby driving the drive unit A.]

and including a battery for powering said time display member to display said non-time information.

[Page 15, lines 30-33, When the timer reaches the end of the determination cycle period TSP (step Sa2; YES), the timepiece control unit 14 supplies the supply voltage V_b obtained by transforming the supply voltage V_a from the battery 22 to the contactless IC module 60.]

Dependent Claim 15

Dependent Claim 15 recites:

wherein said memory stores prepaid card data.

[Page 13, lines 19-22, When this contactless IC module 60 is used as a *prepaid train ticket, the data format of the data stored in the non-volatile memory 69 is, for example, such as that shown in Fig. 6*. That is, the personal ID of the user, the balance data Da, the service provider ID, etc., are stored in the non-volatile memory 69.]

Independent Claims 17 and 22 (Claim 22 is a media claim substantially similar to method Claim 17 - Claim 17 will be treated as exemplary)

The present invention as recited in independent Claim 17, is directed to a wrist-watch (2, Fig. 1) device having a wireless communication function, said wrist-watch device comprising a timepiece module (10, Fig. 4) including a mechanically driven time display member that displays the time (hour/minute-hand and second-hand moving mechanisms 30MH and 30S, Fig. 4), and a wireless communication circuit (60, Fig. 5) that transmits and receives data to and from an external wireless device (100, Fig. 1) by wireless communication, said wireless communication circuit including memory (60, Fig. 9) that stores non-time data; said information display method comprising the steps of:

reading said stored data from said wireless communication circuit in response to an instruction signal;

[Fig. 5 and Page 13, lines 12-23: The non-volatile memory 69 is formed of, for example, an EEPROM. The encrypted data supplied from the encryption processor 68 is written into the non-volatile memory 69. *Upon receiving an instruction from the IC controller 67, the stored data is read out of the non-volatile memory 69.*]

comparing a value of said stored data with a value of predetermined data;

generating comparison result data; and

controlling said time display member to display non-time information in accordance with said comparison result data.

[Page 10, lines 6-9: The value of balance data Da read from the contactless IC module 60 is compared with the value of the predetermined data D0, and upon receiving the comparison result, the second-hand moving mechanism 30S changes the duty of the pulse signal, resulting in a three-second movement.]

Dependent Claims 19 and 23 (Claim 23 is a media claim substantially similar to method Claim 19 - Claim 19 will be treated as exemplary)

Dependent Claim 19 recites:

wherein said time display member comprises a second hand, and further comprising:

controlling said second hand to perform an irregular movement in accordance with said comparison result data.

[Page 10, lines 6-9: The value of balance data Da read from the contactless IC module 60 is compared with the value of the predetermined data D0, and upon receiving the comparison result, *the second-hand moving mechanism 30S changes the duty of the pulse signal, resulting in a three-second movement.*]

Dependent Claims 20 and 24 (Claim 24 is a media claim substantially similar to method Claim 20 - Claim 20 will be treated as exemplary)

Dependent Claim 20 recites:

wherein said wrist-watch device comprises a switch, the method further comprising:

activating said switch; and

controlling said time display member to display information in accordance with said stored data in response to activation of said switch.

[Fig. 14 and Page 14, lines 27-34, The balance display processing is described below based on Fig. 14.

This processing is started when the user operates *the balance display switch 21* (step Sc1).]

Dependent Claims 21 and 25 (Claim 25 is a media claim substantially similar to method Claim 21 - Claim 25 will be treated as exemplary)

Dependent Claim 21 recites:

restarting time display after controlling said time display member to display information in accordance with said stored data for a predetermined period.

[Page 20, line 27 to page 21, line 5: The timepiece control unit 14 sets in a time counter 14A the amount by which the second hand is to be moved according to the balance data Da, and fast-forwards the second hand 40 (or another indicator hand) by the amount of movement. Accordingly, the balance according to the balance data Da is displayed by using the second hand 40 (step Sc5).

Then, the timepiece control unit 14 stops the supply of the power supply voltage Vb and the second reference clock CLK2 to the contactless IC module 60 (step Sc6).

Thereafter, the timepiece control unit 14 restarts the display of the current time (step Sc7).

In this case, *the time counter 14A counts down the second hand 40 every second, and when the count value becomes zero, the regular one-second movement is restarted.*]

Independent Claim 26

The present invention as recited in independent Claim 26, is directed to a wrist-watch (2, Fig. 1) device having a wireless communication function, said wrist-watch device comprising a timepiece module (10, Fig. 4) including a mechanically driven time display member that displays the time (hour/minute-hand and second-hand moving mechanisms 30MH and 30S, Fig. 4), and a wireless communication circuit (60, Fig. 5) that transmits and receives data to and from an external wireless device (100, Fig. 1) by wireless communication, said wireless communication circuit including memory (60, Fig. 9) that stores non-time data; said control program executing the steps of:

detecting an instruction from an external source;

reading said stored data from said wireless communication circuit in response to an instruction signal;

[Fig. 5 and Page 13, lines 12-23: The non-volatile memory 69 is formed of, for example, an EEPROM. The encrypted data supplied from the encryption processor 68 is written into the non-volatile memory 69. *Upon receiving an instruction from the IC controller 67, the stored data is read out of the non-volatile memory 69.*]

and controlling said time display member to display non-time information in accordance with said stored data.

[Page 10, lines 6-9: The value of balance data Da read from the contactless IC module 60 is compared with the value of the predetermined data D0, and upon receiving the comparison result, *the second-hand moving mechanism 30S changes the duty of the pulse signal, resulting in a three-second movement.*]

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

(1) Claims 1, 7-9, 13-15, 17, 20, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engelmann, U.S. Patent No. 6,335,906, in view of Lee, U.S. Patent No. 5,474,377.

(2) Claims 3-6, 10-11, 19, 21, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engelmann and Lee in further view of Nomura et al. (hereinafter “Nomura”), U.S. Patent No. 4,223,522.

(3) Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Engelmann and Lee in further view of Sakumoto et al. (hereinafter “Sakumoto”), U.S. Patent No. 6,449,583.

(4) Claim 26 is rejected under 35 U.S.C. 102(e) as being anticipated by Engelmann.

ARGUMENT

A. The rejection of Claims 1, 7-9, 13-15, 17, 20, 22, and 24 under 35 U.S.C. 103(a) as being unpatentable over Engelmann, U.S. Patent No. 6,335,906, in view of Lee, U.S. Patent No. 5,474,377.

In paragraph 6 of the Final Office Action, the Examiner sets forth his rejection of Claims 1, 7-9, 13-15, 17, 20, 22, and 24 under 35 U.S.C. 103(a) as being unpatentable over Engelmann, U.S. Patent No. 6,335,906, in view of Lee, U.S. Patent No. 5,474,377.

Independent Claim 1 recites, in part, a wireless communication circuit including memory that stores non-display data. The Examiner states (page 6, lines 3-5 of the Final Office Action) that Engelmann discloses a “memory (i.e., memory circuit) (see col. 3, lines 7-8) that stores non-display data (i.e., data stored in the object corresponds to payment of a sufficient sum) (see col. 1, lines 20-24).”

Claim 1 further recites, in part, a *mechanically driven time display member that displays time*, and a timepiece control unit that controls *said time display member* to display non-time information *in accordance with said stored data*. The Examiner states (page 6, lines 3-5 of the Final Office Action) that Engelmann discloses “a timepiece control unit (i.e. switch 24) (see fig. 1) that controls *said time display member* to display non-time information *in accordance with said stored data*.”

The Examiner’s assertion is faulty on at least two levels. First, how does switch 24 control the time display member? Claim 1 recites a *mechanically driven time display member that displays time*. Does switch 24 control a *mechanically driven time display member that displays time*? No, switch 24 allows selection of a particular service (col. 3, lines 38-48).

Second, how does switch 24 control the time display member to display non-time information *in accordance with said stored data*? The “non-time display information” being displayed by Engelmann, according to the Examiner, is three different positions, each of these three positions corresponding to the selection and activation of a particular service (page 6, lines 7-13 of the Final Office Action). The Examiner previously asserted that the stored non-display data is “data stored in the object that corresponds to payment of a sufficient sum.” Is display of the selected position in accordance with “data stored in the object that

corresponds to payment of a sufficient sum?" No, it is in accordance with manual movement of the switch by the user (col. 3, lines 33-36). The Examiner is reading the claim limitations as a series of unrelated elements and is applying his rejection accordingly. A prior art reference must disclose each element of the claimed invention "arranged as in the claim." *Lindemann Mashchinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984).

Independent method Claims 17 and 22 recite, in part, controlling said time display member to display non-time information in accordance with said comparison result data. As discussed in the preceding paragraphs, switch 24 does not control a *mechanically driven time display member that displays time* (see preamble of Claims 17 and 22) nor does it display anything in accordance with the claimed comparison result – its "display" is in accordance with manual movement of the switch by the user, as discussed above.

Claim 1 further recites, in part:

a timer that counts a predetermined time period and wherein said timepiece control unit is responsive to said timer counting to an end of said predetermined time period for controlling said time display member to display non-time information in accordance with said stored data;

a comparator unit that compares a value of said stored data with a value of predetermined data, and that generates comparison result data; and

wherein said timepiece control unit controls said time display member to display non-time information in accordance with said comparison result data.

The Examiner readily admits that Engelmann discloses none of these limitations (page 6, line 14 to page 7, line 2 of the Final Office Action). But, in order to meet these specifically claimed limitations, he picks out a few random and unrelated features from Lee.

For example, the Examiner (page 7, lines 8-10 of the Final Office Action) points to a section of Lee (col. 12, line 60 through col. 13, line 19) that discloses "call signal transmissions are counted (step 506), and if they exceed a predetermined number, say, five, without a response, the alarm is generated." What does this have to do with the claimed invention? Nothing.

The Examiner further states (page 8, lines 1-5 of the Final Office Action) "for example, if the predetermined time period from the enabled start time has passed, the portable master key is automatically disabled (see col. 14, lines 17-33). Therefore, it would have been obvious to one skilled in the art to *unhesitatingly conceptualize that at the end of the predetermined time period, data indicating operating state, and/or received data will be displayed on display*

160.” Here again, the Examiner fails to find the claimed limitations in the prior art but can *unhesitatingly conceptualize* applicants’ invention having the benefit of applicants’ specification before him.

The Examiner is reading just enough of the cited references in an attempt to piece together bits of information to meet the claimed invention. The Court of Appeals for the Federal Circuit has consistently prohibited this type of hindsight reconstruction that uses the claimed invention as a template to piece together the teachings of the prior art. The claimed invention must be viewed as a whole, not a series of unrelated elements. See, for example, *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992).

B. The rejection of Claims 3-6, 10-11, 19, 21, 23, and 25 under 35 U.S.C. 103(a) as being unpatentable over Engelmann and Lee in further view of Nomura et al. (hereinafter “Nomura”), U.S. Patent No. 4,223,522.

The Examiner (for example, page 15, lines 15-18 of the Final Office Action) recognizes that Engelmann and Lee fail to disclose the features recited in the rejected claims but relies on Nomura to supply the missing elements.

Dependent Claim 3, for example, recites wherein said time display member comprises a second hand and said timepiece control unit controls said second hand to perform an irregular movement *in accordance with said comparison result data*.

Nomura is cited against the dependent claims as showing an irregular movement of the hands. However, this irregular movement is to indicate a drop in battery voltage, abnormal internal temperature, or rise in humidity (see col. 5, line 55 to col. 6, line 18). However, this irregular movement is not in accordance with a comparison of stored data to a value of predetermined data, as claimed. Nomura is directed to a system that can directly sense measurable characteristics such as voltage, temperature and humidity (see, for example, state sensor 22 – col. 3, lines 59-64). Nomura has nothing to do with comparing stored data with predetermined data (as recited in independent claim 1, for example). So, combining Nomura’s teaching of directly sensing electrical or physical characteristics with Engelmann and/or Lee would not lead to the claimed invention.

It is clear that the Examiner is once again reading just enough of the references to support his rejection but is ignoring the claimed invention as a whole. He is using applicants’ invention as a template to try and piece together

unrelated features from the prior art. The determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the invention. *ATD Corp. v. Lydall, Inc.*, 48 USPQ2d 1321, 1329 (Fed. Cir. 1998).

C. The rejection of Claim 12 under 35 U.S.C. 103(a) as being unpatentable over Engelmann and Lee in further view of Sakumoto et al. (hereinafter “Sakumoto”), U.S. Patent No. 6,449,583.

Dependent Claim 12 recites, in part, wherein said time display member comprises a stop-watch indicator hand and a stop-watch dial that displays measured time, and said timepiece control unit controls said stop-watch indicator hand to display information *in accordance with said stored data*. Here again the Examiner (page 24 of the Final Office Action) culls out features of the prior art (i.e. stop-watch functions) and tries to plug them in to the other references without considering the invention as a whole. In Sakumoto, the stop-watch indicator hand is not controlled *in accordance with stored data*. So, adding Sakumoto’s stop-watch functions to Engelmann and Lee fails to meet the claimed invention. Again the Examiner is using applicants’ invention as a guide to try to piece together parts from the prior art without considering the relationship of the elements of the claims.

D. The rejection of Claim 26 under 35 U.S.C. 102(e) as being anticipated by Engelmann.

The argument presented above with respect to independent Claim 1 is applicable here to independent Claim 26 but will be discussed again in this section.

Independent Claim 26 recites, in part, a wireless communication circuit including memory that stores non-display data. The Examiner states (page 4, paragraph 4 of the Final Office Action) that Engelmann discloses a “memory (i.e., memory circuit) (see col. 3, lines 7-8) that stores non-display data (i.e., data stored in the object corresponds to payment of a sufficient sum) (see col. 1, lines 20-24).”

Claim 26 further recites, in part, a *mechanically driven time display member that displays time*, and a step of controlling *said time display member* to display non-time information *in accordance with said stored data*. The Examiner states (page 5, lines 5-6 of the Final Office Action) that Engelmann discloses

“controlling said time display member to display non-time information in accordance with said stored data (see col. 3, lines 38-57).” This portion of Engelmann describes switch 24 and its operation and function.

The Examiner’s assertion is faulty on at least two levels. First, how does switch 24 control the time display member? Claim 26 recites a *mechanically driven time display member that displays time*. Does switch 24 control a *mechanically driven time display member that displays time*? No, switch 24 allows selection of a particular service (col. 3, lines 38-48).

Second, how does switch 24 control the time display member to display non-time information *in accordance with said stored data*? The “non-time display information” being displayed by Engelmann, according to the Examiner, is three different positions, each of these three positions corresponding to the selection and activation of a particular service (page 6, lines 7-13 of the Final Office Action with reference to the rejection of Claim 1). The Examiner previously asserted that the stored non-display data is “data stored in the object that corresponds to payment of a sufficient sum.” Is display of the selected position in accordance with “data stored in the object that corresponds to payment of a sufficient sum?” No, it is in accordance with manual movement of the switch by the user (col. 3, lines 33-36). The Examiner is reading the claim limitations as a series of unrelated elements and is applying his rejection accordingly. A prior art reference must disclose each element of the claimed invention “arranged as in the claim.” *Lindemann Mashchinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984).

CONCLUSION

It is respectfully submitted that the Examiner recognizes the several patentable differences between the prior art and claimed invention but seeks to arrive at applicants' invention using it as a blueprint to piece together unrelated features of the prior art, without considering the claimed invention as a whole. The Examiner has failed to meet his burden under the law with regard to showing either anticipation or obviousness of applicants' invention as particularly claimed.

Applicants therefore request that the Board reverse the Examiner's final rejection of Claims 1, 3-15, 17, and 19-26.

Respectfully submitted,

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Date: August 3, 2006

CLAIMS APPENDIX

1. A wrist-watch device having a wireless communication function, comprising:
 - a timepiece module including a mechanically driven time display member that displays the time;
 - a wireless communication circuit that transmits and receives data to and from an external wireless device by wireless communication, said wireless communication circuit including memory that stores non-display data;
 - a timepiece control unit that controls said time display member to display non-time information in accordance with said stored data;
 - a timer that counts a predetermined time period and wherein said timepiece control unit is responsive to said timer counting to an end of said predetermined time period for controlling said time display member to display non-time information in accordance with said stored data;
 - a comparator unit that compares a value of said stored data with a value of predetermined data, and that generates comparison result data; and
 - wherein said timepiece control unit controls said time display member to display non-time information in accordance with said comparison result data.
3. A wrist-watch device having a wireless communication function according to claim 1, wherein said time display member comprises a second hand and said timepiece control unit controls said second hand to perform an irregular movement in accordance with said comparison result data.
4. A wrist-watch device having a wireless communication function according to claim 3, wherein said timepiece control unit controls said second hand to move a predetermined distance in accordance with said stored data.
5. A wrist-watch device having a wireless communication function according to claim 4, wherein said timepiece control unit controls said second hand to restart displaying time after a predetermined period following movement of said second hand said predetermined distance.

6. A wrist-watch device having a wireless communication function according to claim 3, wherein said timepiece control unit controls said second hand to move to a predetermined position in accordance with said stored data.

7. A wrist-watch device having a wireless communication function according to claim 1, wherein said timepiece control unit controls said time display member to display information in accordance with said comparison result data when the value of said stored data is less than the value of said predetermined data, and said timepiece control unit is responsive to an updating signal transmitted from said external wireless device for updating the value of said predetermined data.

8. A wrist-watch device having a wireless communication function according to claim 1, wherein said wireless communication circuit is responsive to a polling signal from the external wireless device for transmitting a communication enable signal indicating that wireless communication is to be performed with the external wireless device.

9. A wrist-watch device having a wireless communication function according to claim 1, further comprising a housing and a switch positioned on said housing and wherein said timepiece control unit is responsive to actuation of said switch for controlling said time display member to display information in accordance with said stored data.

10. A wrist-watch device having a wireless communication function according to claim 1, wherein said time display member comprises a first dial that displays at least one of the day of the week and the day of the month and said timepiece control unit controls said first dial to display information in accordance with said stored data.

11. A wrist-watch device having a wireless communication function according to claim 1, wherein said time display member comprises a first dial that displays time, and a separate second dial that displays at least one of the day of the week and the day of the month and said timepiece control unit controls said second dial to display information in accordance with said stored data.

12. A wrist-watch device having a wireless communication function according to claim 1, wherein said time display member comprises a stop-watch indicator hand and a stop-watch dial that displays measured time, and said timepiece control unit controls said stop-watch indicator hand to display information in accordance with said stored data.

13. A wrist-watch device having a wireless communication function according to claim 1, wherein said wireless communication circuit comprises an IC chip including a communicator that modulates and demodulates data, and a controller that controls individual elements.

14. A wrist-watch device having a wireless communication function according to claim 1, wherein said wireless communication circuit comprises a power supply voltage generator that receives a signal from said external wireless device and that generates a power supply voltage from said received signal, and said timepiece control unit reads data from said wireless communication circuit by using said generated power, and including a battery for powering said time display member to display said non-time information.

15. A wrist-watch device having a wireless communication function according to claim 1, wherein said memory stores prepaid card data.

17. An information display method for use in a wrist-watch device having a wireless communication function, said wrist-watch device comprising a timepiece module including a mechanically driven time display member that displays the time, and a wireless communication circuit that transmits and receives data to and from an external wireless device by wireless communication, said wireless communication circuit including memory that stores non-time data; said information display method comprising the steps of:

reading said stored data from said wireless communication circuit in response to an instruction signal;

comparing a value of said stored data with a value of predetermined data;

generating comparison result data; and

controlling said time display member to display non-time information in accordance with said comparison result data.

19. An information display method for use in a wrist-watch device having a wireless communication function according to claim 17, wherein said time display member comprises a second hand, and further comprising:

controlling said second hand to perform an irregular movement in accordance with said comparison result data.

20. An information display method for use in a wrist-watch device having a wireless communication function according to claim 17, wherein said wrist-watch device comprises a switch, the method further comprising:

activating said switch; and

controlling said time display member to display information in accordance with said stored data in response to activation of said switch.

21. An information display method for use in a wrist-watch device having a wireless communication function according to claim 17, further comprising:

restarting time display after controlling said time display member to display information in accordance with said stored data for a predetermined period.

22. A recording medium for storing a control program executable by a computer for controlling a wrist-watch device having a wireless communication function, said wrist-watch device comprising a timepiece module including a mechanically driven time display member that displays the time, and a wireless communication circuit that transmits and receives data to and from an external wireless device by wireless communication, said wireless communication circuit including memory that stores non-time data; said control program executing a method comprising the steps of:

detecting an instruction from an external source;

reading said data from said wireless communication circuit based on said instruction;

comparing a value of said stored data with a value of predetermined data;

generating comparison result data; and

controlling said time display member to display non-time information in accordance with said comparison result data.

23. A recording medium according to claim 22, wherein said time display member comprises a second hand, and said method further comprises:

controlling said second hand to perform an irregular movement in accordance with said comparison result data.

24. A recording medium according to claim 22, wherein said wrist-watch device comprises a switch, the method further comprising:

activating said switch; and

said detection of said instruction is in response to activation of said switch.

25. A recording medium according to claim 22, wherein the method further comprises:

restarting time display after controlling said time display member to display information in accordance with said stored data for a predetermined period.

26. A control program for controlling a wrist-watch device having a wireless communication function, said wrist-watch device comprising a timepiece module including a mechanically driven time display member that displays the time, and a wireless communication circuit that transmits and receives data to and from an external wireless device by wireless communication, said wireless communication circuit including memory that stores non-time data; said control program executing the steps of:

detecting an instruction from an external source;

reading said data from said wireless communication circuit based on said instruction; and

controlling said time display member to display non-time information in accordance with said stored data.

EVIDENCE APPENDIX

N/A

RELATED PROCEEDINGS APENDIX

N/A